



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,119	07/10/2003	Rudolf Weiss	WEISS, R ET AL I	3441
25889	7590	04/06/2006	EXAMINER	
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			MACARTHUR, VICTOR L	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/617,119

Applicant(s)

WEISS ET AL.

Examiner

Victor MacArthur

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-10, 12 and 14-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-17 is/are allowed.
- 6) ☒ Claim(s) 7-10 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

Claims 7, 12 and 14 are objected to because of the following informalities:

- The reference character “(3)” recited throughout claims 7, 12 and 14 should be deleted since it is not present in the current version of the drawings.

Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7, 8 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Peter (U.S. Patent 3, 849,015).

Claim 7. Peter discloses (fig.1) a shaft-hub connection comprising: an attachment flange (16) having a hub-sleeve element (conical hub-sleeve portion of 16) with a radially outermost surface that is conical (conical surface of 16); a clamping element (2) which is attachable to the attachment flange and by means of which a shaft end (6) assigned to the attachment flange is connectable by frictional connection to the attachment flange; and a bushing (3) positioned between (radially between) the hub-sleeve element and the shaft end to take up a slip torque and designed in multiple parts in its axial direction, wherein the hub-sleeve element is under the

Art Unit: 3679

clamping effect of the clamping element, and wherein the level of the slip torque which is to be taken by the bushing can be preset (e.g. by tightening 5').

Claim 8. Peter discloses that the clamping element is a clamping ring.

Claim 12. Peter discloses that the hub-sleeve element is implemented in one piece with the attachment flange (in that left 16 is one-piece) and extends **essentially** (though not necessarily completely) over the length of the bushing.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peter (U.S. Patent 3, 849,015) in view of Clifton (U.S. Patent 5,599,129).

Claim 9. Peter discloses that the bushing should be made of a softer material than the shaft (col.2, ll.34-41) but does not expressly disclose bronze bushings. Clifton teaches (col.4, ll.50-55) that it is desirable to use bronze bearings with steel shafts. It has generally been recognized that selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use a bronze material to construct the bushing of Peter, since such practice is a design consideration within the skill of the art.

Art Unit: 3679

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peter (U.S. Patent 3, 849,015) in view of Richardson (U.S. Patent 5,970,932).

Claim 10. Peter discloses that the bushing should be made of a softer material (col.2, ll.34-41) than the shaft but does not expressly disclose oil-impregnated bronze bushings. Richardson teaches (col.2, ll.2, ll.8-13) that oil impregnated bronze bushings are desirable since such bushings have high wear resistance. The oil impregnated bronze bushings have a sliding film (oil) on all of its surfaces. It has generally been recognized that selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to make the Peter bushings from an oil impregnated bronze since oil impregnated bronze has a high wear resistance.

***Allowable Subject Matter***

Claims 14-17 are allowed.

Claim 14. The prior art does not disclose or suggest the newly added limitations “at least two bushings positioned radially between said first part of the hub-sleeve element and said another part of the hub-sleeve element” (lines 13-15 of claim 14), “the bushings contacting one another in the axial direction” (lines 16-17 of claim 14), “wherein said first part of the hub-sleeve element extends over the length of said at least two bushings, in contact therewith” (lines 18-20 of claim 14), “bushings can be preset by adjusting a bolt which connects the attachment flange with the clamping element” (lines 24-25 of claim 14).

Art Unit: 3679

Claims 15-17 depend from claim 14.

Claim 7 would be allowable over the prior art if amended to read as follows:

A shaft-hub connection comprising:

an attachment flange having a hub-sleeve element ~~with~~ that is homogenous therewith, the hub-sleeve element having a radially outermost surface that is conical;

a clamping element ~~which is attachable to said attachment flange~~ threadably receiving a bolt for drawing said clamping element towards said attachment flange, said clamping element having a conical radially innermost surface in wedging contact with said conical surface of said hub-sleeve element, said wedging contact causing and by means of which a shaft end assigned to said attachment flange ~~is connectable to be connected~~ by frictional connection to said attachment flange; and

a bushing positioned between said hub-sleeve element and said shaft end to take up a slip torque ~~and~~ , said bushing designed in multiple separable parts in its axial direction, wherein said hub-sleeve element is under a clamping effect of said clamping element, and wherein the level of the slip torque which is to be taken by said bushing can be preset.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection.

***Conclusion***

Applicant's amendment (i.e., the newly added limitation “radially outermost surface that is conical” in line 4 of claim 7) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor MacArthur whose telephone number is (571) 272-7085. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 3679

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-3600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.



VLM

March 30, 2006



DANIEL P. STODOLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600